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29. Mai 2007		gesehen
NOT	Datum	erledigt
NOT		

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Date

25.05.07

Reference
060940EP

Application No./Patent No.
04792875.9 - 2401 PCT/JP2004015733

Applicant/Proprietor
Meiji Seika Kaisha, Ltd.

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the supplementary European search report under Article 157(2)(a) EPC for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

- ☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

Refund of the search fee

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





European Patent
Office

**SUPPLEMENTARY
EUROPEAN SEARCH REPORT**

Application Number
EP 04 79 2875

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
(1) X	WO 97/43409 A (NOVONORDISK AS [DK]; DALBOEGE HENRIK [DK]; DIDERICHSEN BOERGE [DK]; SA) 20 November 1997 (1997-11-20) * sequences 65, 66 * -----	1,6,8	INV. C12N15/56 C12N9/24 C12N1/15 C12N1/19
(2) X	WO 98/12307 A (NOVONORDISK AS [DK]; ANDERSEN KIM VILBOUR [DK]; SCHUELEIN MARTIN [DK];) 26 March 1998 (1998-03-26) * page 77 - page 78 * * page 7 - page 11 * -----	1,6,8	D06M16/00 C11D3/386 C11D7/42 D21H11/20 D21H25/18 A23K1/12
(3) E	WO 2005/056787 A (MEIJI SEIKA KAISHA [JP]; WATANABE MANABU [JP]; YANAI KOJI [JP]; TSUYUK) 23 June 2005 (2005-06-23) * sequence 44 * -----	1-28	
(4) A	EP 1 291 431 A1 (MEIJI SEIKA KAISHA [JP]) 12 March 2003 (2003-03-12) -----		
(5) A	EP 0 959 128 A1 (MEIJI SEIKA CO [JP]) 24 November 1999 (1999-11-24) -----		
(6) A	EP 1 344 820 A1 (MEIJI SEIKA KAISHA [JP]) 17 September 2003 (2003-09-17) -----		
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search Munich		Date of completion of the search 16 May 2007	Examiner Mabit, Hélène
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 79 2875

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-05-2007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9743409	A	20-11-1997	AU 3025597 A	05-12-1997
			EP 0898618 A2	03-03-1999
			US 6270968 B1	07-08-2001
WO 9812307	A	26-03-1998	AT 324437 T	15-05-2006
			AU 4200797 A	14-04-1998
			BR 9711479 A	24-08-1999
			CA 2265914 A1	26-03-1998
			CN 1230987 A	06-10-1999
			DE 69735767 T2	05-04-2007
			EP 0937138 A1	25-08-1999
			JP 3532576 B2	31-05-2004
			JP 2000514311 T	31-10-2000
			JP 2004065255 A	04-03-2004
			US 2003092097 A1	15-05-2003
WO 2005056787	A	23-06-2005	CN 1890367 A	03-01-2007
			EP 1702981 A1	20-09-2006
			US 2007099265 A1	03-05-2007
EP 1291431	A1	12-03-2003	AT 349516 T	15-01-2007
			AU 5879901 A	03-12-2001
			CN 1436243 A	13-08-2003
			DE 60125534 T2	19-04-2007
			DK 1291431 T3	26-03-2007
			WO 0190375 A1	29-11-2001
			US 2005143275 A1	30-06-2005
EP 0959128	A1	24-11-1999	AT 338111 T	15-09-2006
			AU 3634797 A	10-02-1998
			CN 1230988 A	06-10-1999
			WO 9803640 A1	29-01-1998
			US 6159720 A	12-12-2000
EP 1344820	A1	17-09-2003	AU 2406802 A	03-06-2002
			WO 0242474 A1	30-05-2002
			US 2004043400 A1	04-03-2004

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

MEJ-718

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/015733

International filing date (day/month/year)

22.10.2004

Priority date (day/month/year)

03.12.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

MEIJI SEIKA KAISHA, LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/015733

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☒ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☒ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☒ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/015733

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-5	YES
	Claims	6-28	NO
Inventive step (IS)	Claims	1-5	YES
	Claims	6-28	NO
Industrial applicability (IA)	Claims	1-28	YES
	Claims		NO
2. Citations and explanations:			
<p>Document 1: JP 11-502701 A (Novo Nordisk A/S), 09 March 1999 Document 2: WO 00/24879 A1 (Meiji Seika Kaisha, Ltd.), 04 May 2000 Document 3: WO 01/90375 A1 (Meiji Seika Kaisha, Ltd.), 29 November 2001</p> <p>The inventions of Claims 6-25 do not appear to possess novelty based on documents 1-3 cited in the ISR.</p> <p>Documents 1-3 describe various proteins having endoglucanase activity, genes coding for these proteins, methods for producing these proteins by culturing hosts which have been transformed with vectors containing these genes, and methods for treating fibers using these proteins (see in particular document 1, Claims 72 & 82-104, SEQ ID NOS:8, 9, etc., document 2, Claims 1-83, and document 3, Claims 1-26).</p> <p>Regarding the description "multiple" in Claim 6(b) of this application, although the specifications describe in paragraph 0029 that "the number of amino acids involved in 'deletions, substitutions, insertions, additions' and other modifications is preferably 1-30 or more preferably 1-10 or still more preferably 1-6," the number is not particularly limited. Thus, the proteins of Claim 6 of this application cannot be distinguished as an object from the proteins described in documents 1-3.</p> <p>Moreover, regarding the description "multiple" in Claims 8(ii) of this application, although the specifications describe in paragraph 0041 that "the number of bases that may be deleted, substituted, inserted or added is preferably 1-30 or more preferably 1-18 or still more preferably 1-9," the number is not particularly limited. Thus, the polynucleotides of Claim 8 of this application cannot be distinguished as an object from the polynucleotides described in documents 1-3.</p> <p>The inventions of Claims 26-28 do not appear to possess novelty based on documents 2-3 cited in the ISR.</p> <p>Documents 2-3 describe the use of preparations containing the various proteins having endoglucanase activity mentioned above in process for de-inking old paper by treating it with de-inking chemicals, process for treating paper pulp to improve its freeness, and process for treating cellulose-containing fiber to improve the digestibility of animal feed (see in particular document 2, Claims 84-85 and document 3, Claims 27-29).</p> <p style="text-align: right;">(Continued in Supplemental Box)</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/015733

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

The inventions of Claims 1-5 appear to involve an inventive step over documents 1-3 cited in the ISR.

Documents 1-3 do not describe a protein having endoglucanase activity which is derived from a microorganism of the genus *Staphylotrichum*, nor could this be easily arrived at by a person skilled in the art from the descriptions of documents 1-3.